Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-149. (cancelled)

150. (New) A method of treating a patient susceptible to tachycardia the method comprising:

implanting a device having a housing and containing circuitry for sensing and treating tachycardia, the circuitry configured to provide a constant current output signal; and

implanting at least one electrode coupled to the device for use in sensing or treating cardiac function of the patient;

wherein the at least one electrode is implanted to be non-vascular and non-cardiac.

151. (New) The method of claim 150, wherein the device further includes a device electrode disposed on or making up part of the housing.

152. (New) The method of claim 150, further comprising treating tachycardia by forcing a constant current signal to pass through patient tissue between the device electrode and another implanted non-vascular and non-cardiac electrode.

153. (New) The method of claim 150, further comprising:

sensing a portion of the patient's cardiac cycle;

categorizing the patient's cardiac cycle as acceptable or abnormal; and

if the rhythm is abnormal, generating a constant current electric signal to treat the abnormal cardiac cycle, the constant current electric signal generated between implanted non-vascular and non-cardiac electrodes.

154. (New) The method of claim 150, wherein the circuitry is adapted to provide two constant current electric signals in a biphasic waveform.

155. (New) The method of claim 150, further comprising generating a monophasic constant current signal.

156. (New) The method of claim 150, further comprising generating first and second constant current electric signals of opposing signs in a biphasic waveform.

157. (New) A method of alleviating tachycardia for a patient, the method comprising:

implanting a device adapted to provide a constant current signal into the patient;

providing a lead system having one or more electrodes for the device, the lead system provided such that it is disposed internally to the patient without contacting the patient's heart;

sensing an abnormality in the patient's cardiac rhythm using electrodes disposed internally to the patient but not contacting the patient's heart, at least one of the electrodes being part of the lead system; and

discharging a constant current signal from the device to the patient.

158. (New) The method of claim 157, wherein the lead system is provided such that it does not reside in the patient's vasculature.

159. (New) The method of claim 157, wherein the step of sensing an abnormality in the patient's cardiac rhythm makes use only of electrodes disposed outside of the patient's heart and vasculature.

160. (New) The method of claim 157, wherein the step of discharging the constant current signal is performed using two electrodes as anode and cathode, wherein a line drawn from the anode to the cathode would intersect the heart.

161. (New) The method of claim 160, wherein the anode and cathode are both disposed outside of the heart.

162. (New) The method of claim 160, wherein the anode and cathode are on opposing sides of the heart.

163. (New) The method of claim 157, wherein the device and the lead system for the device are disposed in the patient such that electrodes in the lead system consist of electrodes disposed outside of the patient's heart and vasculature.

164. (New) A method of treating tachycardia comprising:

implanting a device in a patient, the device having a housing including an electrode, the device also containing circuitry for sensing and treating tachycardia and generating a constant current signal; and

implanting at least one electrode coupled to the device for use in sensing or treating cardiac function of the patient;

treating tachycardia by generating a constant current signal between the device electrode and another electrode coupled to the device;

wherein all electrodes coupled to the device are disposed outside of the patient's vasculature and exclusive of the patient's heart;

165. (New) The method of claim 164, further comprising:

sensing a portion of the patient's cardiac rhythm; and

categorizing the patient's cardiac rhythm as acceptable or abnormal; wherein the step of treating tachycardia is performed when the patient's cardiac rhythm is abnormal.